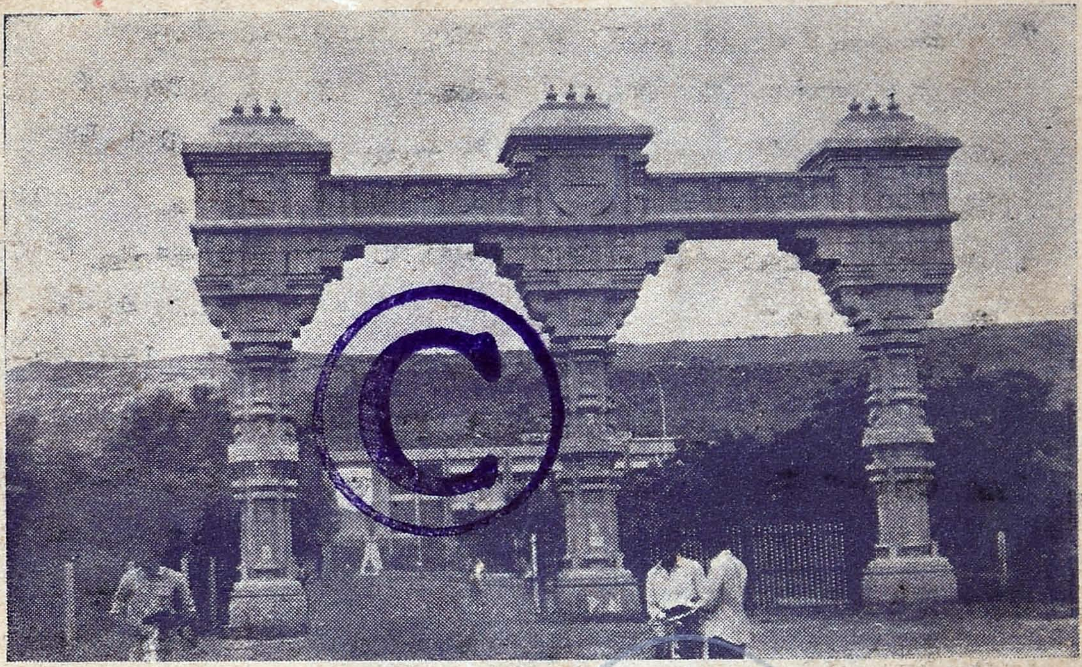
MADURAI PALKALAINAGAR NEW TOWN DEVELOPMENT PLAN

189/88



ACL-TNAL 00466

- Directorate of Town and Country Planning
  Government of Tamil Nadu.
- Madurai Palkalai Nagar New Town
  Development Authority.

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MADURAI PALKALAINAGAR NEWTOWN DEVELOPMENT PLAN.

DIRECTORATE OF TOWN AND COUNTRY PLANNING
GOVERNMENT OF TAMILNADU.

MADURAI PALKALAINAGAR NEW TOWN
DEVELOPMENT AUTHORITY.

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Reference Numbers -

Regional Office: Roc.No. 567/85 MR(4) Dated .2.1985.

Directorate of Town and Country Planning.

NEW TOWN DEVELOPMENT PLAN - PALKALAINAGAR NEWTOWN DEVELOPMENT AREA.

(Approved in Resolution No. 3 Dated 26.2.1985. of the Madurai Palkalainagar New Town Development Authority.)

Consented in G.O.No.64 Housing and Urban Development Department Dated 28.1.1988.

Sd.

DEPUTY DIRECTOR OF TOWN AND COUNTRY PLANNING (INCHARGE) MADURAI REGION, MADURAI-2.

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JOINT DIRECTOR OF TOWN AND COUNTRY PLANNING.

DIRECTOR OF TOWN AND COUNTRY PLANNING.

COMMISSIONER AND SECRETARY TO GOVERNMENT, HOUSING AND URBAN DEVELOPMENT.

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PALKALAINAGAR NEW TOWN DEVELOPMENT PLAN.

CHAPTER - I.

INTRODUCTION:

1.01 The role played by Education is very vital for development of a nation. The educational system also has intimate bearing on the attainment of the general objectives of the plan in as much as it largely determines the quality of men, power and the social climate of the community. Education is the most important single factor in achieving rapid economic development and technological progress and it creating social order founded on the values of freedom, is social justice and an equal order of opportunity for all.

1.02 It is well known that a large majority of Indian citizens are as yet illiterates. Even in 1981 as many as 50 out of every 100 adults in India do not know how to read or write. "If a change on a grand scale is to be achieved" says the Educational Commission (1964-66) and it goes on, "without violent revolution (and even then it would still be necessary), there is one instrument and on instrument only, that can be used: "Education". In order to bring such social, political, economic revoultion in India, the Commission has emphasised the need for bringing about a revolution in the Education system itself. The existing educational system is completely inadequate to meet the challenge of such a vast proportion.

1.03 "A University", remarked the late Pandit Jawaharlal Nehru, while addressing Allahabad graduates in 1947, "Stands for humanism, for tolerance, for reasons, for adventure of ideas and the search for truth". Universities have to find ways and means of inculcating the new values of adventures of ideas and search for truth. These are values which foster the scientific spirit of inquiry and develop rational attitudes towards the nature.

1.04 A University serves as a social institution. It organises and directs national education. It plays a chief role in the mobilisation of the spritual and cultural resources of the nation, for the paramount purpose of national expansion and progress. More than this, it functions as a community school which trains the individua l in and through study of environment of a community as a whole.

1.05 The University is essentially a society of individuals living and working together for the advancement of learning and dissemination of knowledge at the highest possible level of intellectural achievement and spritual aspiration.

1.06 So the University must be housed with a limited campus and that there should be provision for a clear hierarchy of groups from the individuals to the whole, so that it can have a sufficient chohesion to operate as a community. There should be no rigid demarcation between the places where the members of one university work and the places where they and have their homes, and there must be provision for residences within the university campus for the maximum possible numbers of teachers, students and staff of all kinds. Facilities must be provided for natural and unforeseen association and easy formation of groups through which a wide variety of work and leisure activites can take place.

1.07 Universities are residential or non-residential Unitary or federal, affiliating or teaching or both.

1.08 In a residential University, the student life is controlled and opportunities are for co-operate life for students coming from distant places and different status of a society. Above all there is a close contact between the teacher and the student. The outstanding examples of residential Universities are Banaras, Lucknow and Annamalai in India.

1.09 An unitary University is one which carries on its work through its own departments of teaching or through its teaching of the course of study and the entire administration are in its own hand.

1.10 The federal university is one which consists of several colleges of approximately equal standing, separated by no excessive ~~distance~~ ~~or marked~~ by local individuality, grouped together as a university. The universities of Delhi, Bombay and Bangalore ~~and~~ are examples.

1.11 A University which gives instructions to its students either in its own departments or in its consititutent colleges through teachers appointed by it is called a teaching university as contrasted with one which does not directly control the teaching but permits other institution such as affiliated colleges to provide the instruction through their own teachers. The University's function is being one of general supervisonand examination. This is called affiliating type university. Examples:- Madras, Madurai, Andhra etc.

1.12 The open university in united kingdom started functioning on 1st of January 1971 at Milltonkeynes situated 50 miles north of London. The teaching method includes correspondence courses, radio, listening, televison viewing, production of taped material, discussions and personal contracts.

1.13 During the last few decades the knowledge explosion and the population explosion have created exclusive hunger for education, especially for higher education. In Tamilnadu, Madras and Annamalai Universities are not in a position to cope with the demand. Moreover the development of science and technology has created new teaching machines and techniques of mass education and to make the temp of learning quicker and easier.

1.14 So the need for the establishment of a second affiliating cum teaching university for serving the southern region of Madras state was keenly felt. This question had been under the active consideration of Government for sometime. In view of the rapid progress of higher education in the State, Madurai was suggested as a worthy centre, for the head-quarters of a new university. The State Government consulted the Government of India and the University. grant commission in the matter and both agreed in principles to the setting up of an additional university in Madras State. Accordingly as expert committee was constituted by the Government in May 1963, to examine and report in detail the various issues connected with the establishment of the proposed University. Necessary legislation was passed by the Madras Legislative and the Madurai University Act 1965 (Madras Act No. 33 of 1965) to come into force in its entity from 1st March, 1966. The jurisdiction of the new university extends over the Revenue Districts of Madurai, Ramanathapuram, Tirunelveli and Kanyakumari with its headquarters in Madurai the second biggest city in the state.

1.15 The Directorate of Town Planning prepared the New Town Development Plan for the proposed Madurai Palkalai Nagar New Town Development Area. Therefore the draft report for the New Town Development Plan for University Development area has been prepared and the following chapters are dealt with in this report.

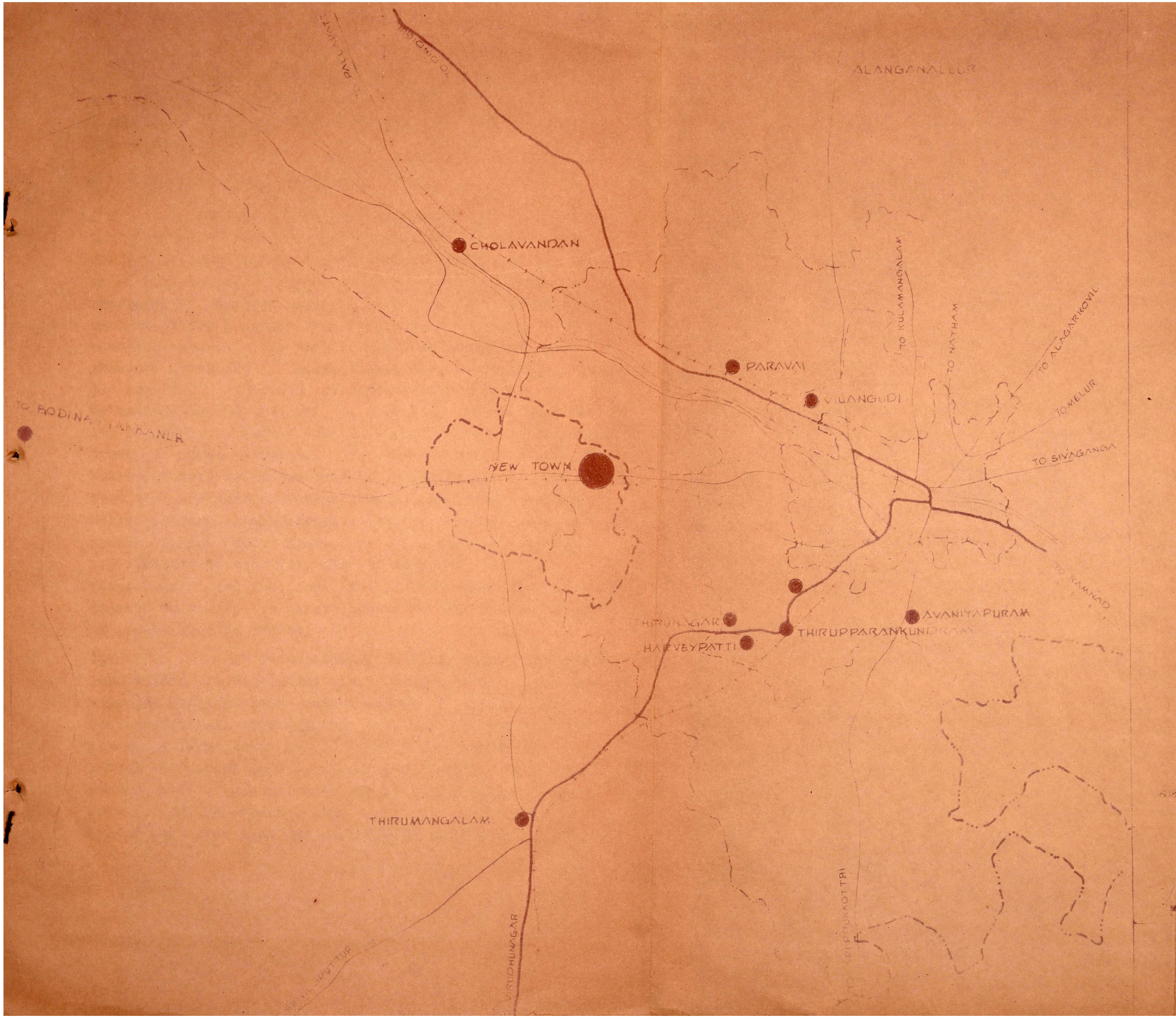
LOCATION OF THE UNIVERSITY AT MADURAI

Emergence of the New University:

1.16 In India there are many universities of different types; In Tamil Nadu 2 Universities namely Madras University and Annamalai University were functioning upto the year 1965. Both these were catering to a large number of students. As the strength of the students had increased gradually, the need to start another university was keenly felt and hence this University namely Madurai University had emerged in the year 1965 with headquarters at Madurai on modern lines with new branches in science and technology.

NEWTOWN DEVELOPMENT PLAN

LOCATION MAP.



LEGEND

- MADURAI CORPORATION BOUNDARY
- NEW TOWN DEVELOPMENT AREA BOUNDARY
- MADURAI LOCAL PLANNING AREA BOUNDARY
- TALUK BOUNDARY
- DISTRICT BOUNDARY
- NATIONAL HIGHWAYS
- STATE HIGHWAYS
- OTHER ROADS
- RAILWAY LINE
- NEW TOWN

This new University with headquarters at Madurai cater to the needs of the southern part of the state namely the districts of Madurai, Ramanathapuram, Tirunelveli and Kanyakumari.

Creation of a new University:

1.17 The total number of affiliated and approved instututions in these district is 104 as on 1983. There are 99 Arts and Science colleges, two medical colleges and three engineering colleges under the control of the University. Through Madurai University is an affiliated one, it offers a number of post graduate courses, besides research schemes. The various subjects taught at post graduate level are 1. Tamil literature, 2. English literature 3. Sanskrit 4. French 5. History 6. Economics 7. Mathematics 8. Physics 9. Chemistry 10. Biology and 11. Geography. Further the university offers correspondence course to 38846 students. The administrative office and various faculties of the university require large extent of land for uses such as lecture halls, laboratory, seminar halls, library, administrative offices, canteen, playground sports grounds etc., Apart from this, area for residence and concomitant uses will also be required. Hence, establishment and functions of the new university had necessiated to create a separate campus for which large extent of vacant land is needed.

1.18 It is impossible to find a large stretch of land within the corporation limit of Madurai and hence the site for the university campus was chosen outside the Corporationlimit since Madurai city has been surrounded by a number of large tanks and fertile fields, stretches of dry, barren and vacant land along Nagamalai, which lies in the western side of Madurai city was finally chosen as the site for the University. The university grant commission of Britan advocates that new universities should be built on

spacious campuses outside cities and with residential accommodation to a large degree. The site in which university campus developed had been chosen after considering site condition, setting, accessibilityand cost. The new campus at foot of Kodimangalam block. (B.F.) lies at latitude 9°.55" north and longitude 78° east. It spreads about the revenue boundary of Vadapalanji village of Madurai South Taluk.

1.19 The site of campus is more or less plain without any steep slope and irregular topography. The site is broad in scale and presents a fine opportunity forthe development of architectural beauty. Since the site lies well outside the city the new campus is free from source of noise, traffic hazards etc. The campus is connected by Madurai-Usilampatti Road (M.D.R.) and Madurai- Bodinayakkanur Railway line.

NEW TOWN:

The town planned in virgin land in order to accommodate the population due to the imposition of the new developments such as big industrial establishments or other establishments like University is designated as 'New Town'. Obviously such a New Town has to be created by providing all the core services and infrastructural facilities solely intended for a township for the better living of the residents. Moreover these towns have to be self contained in terms of urban facilities and working places. Generally the New towns are built around a major city where people are compelled to live in a dehumanising environment which is not at all worth for living and there is always deteriopration of core services. In this case the New towns are mainly intended for receiving the spill over population of the major cities.

CONCEPT OF NEW TOWN:

The idea of building new town is now new but, the concept of utilising the New towns a part of the strategy of constraining gaint metropolis within its limits orginated very long ago. The idea was proposed by Ebinizer Howard in 1890 in Brittan. Howard saw the continuous deterioration of the quality of life in London and was convinced that this was mainly caused by the unchecked sprawl of cities. His main objection was to the problems of long and excessive journey to work and the concentration of the urban poor in the central areas of the cities. He, made an attempt to mitigate these difficulties by proposing New towns in the peripheral area of metropolitan cities. He preposed compact self contained New town of 35,000 to 60,000 population as ideal ones which he thought would insure a proper relationship between the town and country and between work, residence and recreation areas. The idea has been extensively applied in Brittan and specially in the London region for which a plan was prepared by Aber Crombie, a great planner.

Thus the new towns were expected to fulfill two major roles.

1. Take the spillover population from metropolitan cities.
2. Develop their economic base in terms of industries and offices so as to become self contained and reduce commuting distances.

Need for a New Town for Palkalainagar:

The New University named Madurai Kamaraj University was located on a barren vacant land along Nagamalai which spreads on the westernside of Madurai city at a distance of 12 Kms. As the university comprises of many faculties of science and technology with faster rate of growth it necessarily accommodates administrative offices and buildings for various faculties employing more number of persons both teaching and non teaching. Further due to this new development of university, there is a sudden growth of population in the university environment in order to do mainly service to the residents of university campus.

At present almost all the staff members in the category of progessors, lecturers and administrative officers are having their residences in Madurai city and travelling to the University campus for their daily ork. This may be attributed to the absence of basic urban facilities shopping facilities and cultural amenities needed for the well being of a community in the university campus. Moreover the staff members with their families have to live in Madurai city, where the urban services have already been overstrained and there is always a congestion in every activity of the city.

It has, therefore, become imparative to plan a New town adjoining the University campus itself providing all the urban facilities and infrastructures. It is only the solution to the present problem of urban growth of Madurai city and to make the Palkalainagar a worthy town for a pleasant living.

1.20 CONSTUTITION OF PALKALAINAGAR NEWTOWN DEVELOPMENT AUTHORITY:

As the Madurai Kamaraj University is developing in faster rate with addition of many departments and various activities, the University campus and its surrounding area are the focal points of developments of residential, commercial and other allied activities. The faster rate in growth of its functions of the University and its surrounding area needs a New Town Development Authority so as to control and regulate the developments occuring on the nvironment of the University.

Accordingly the Government in G.O.Ms.No. 286, Housing and urban development dated 25.2.78 have notified Madurai Palkalainagar New Town Development Area under section 10(1) (a) of the Tamil Nadu Town and Country Planning 1971 and confirmed under section 10(4) of the same act. In G.O.Ms.No. 326 dated 13th April, 1982 the appointment of the members under section 11(4) for the New Town Development Authority was constituted consisting of a Chairman, five members and a Member Secretary. The Collector of Madurai had been appointed as the Chairman. The Deputy Director of Town Planning and the Registrar of the Madurai Kamaraj University are included as

as members. The Assistant Director of Town and Country Planning of Madurai Region acts asthe Member Secretary.

The New Town Development Area called Palkalai Nagar declared by the Government comprises of the following villages viz-.

1. Vadapalanji.
2. Thenpalanji
3. Sakkilipatti.
4. A.Kokkulam.
5. Kongerpuliyankulam and
6. Kinnimangalam.

CLIMATE

1.21 The Palkalainagar is very close to Madurai city. The climatic condition during the months of January to March will be dry. April to May will be a hot season followed by south west monsoon during June to September. North-east monsoon period prevails during October to December.

RAINFALL:

1.22 Rainfall is above 90 cms. in a year. Showers are irregular and usually heavy during the north-west monsoon.

TEMPERATURE:

1.23 The mean maximum and minimum temperature 37.4° and 21.6°C respectively for Palkalainagar. In the hotest months of April to June, the teperature does occasionally shoot beyond 40°C. The highest temperature recorded in recent years was 39.7°C and the lowest was 18.8.°C.

1.24 The relative humidity in summer ranges from 68% to 45% and in winter from 75% to 50%. The mean humidity is 74%.

WIND:

1.25 In January and February the wind blows steadily between the north and eastern direction . In March and April it gradually leaves the north direction, looses strength and steadyness and weers roundthe east and south east direction. From May to July the prevailing direction is from South-west. In August and September the wind is still in West and North direction. During the period of October to November, the wind blows from North and North East and blows with a velocity of 1.19 Kms.

SOILS:

1.26 The soils of Palkalainagar consist of mostly red soil. Granular quarts rock group forms a low rocky ridge about 3 kms. southwards of Nagamalai hills near the village of Kokkulam.

1.3.00 POPULATION STUDIES:

1.3.01 The study of the surround ing area of the University has been made in order to assess he future development of the Palkalai Nagar without any impact on the University campus. Moreover the study has been made in order to assess whether there is sufficient populati on to support the minimum necessary infrastrures to the entire populati on of the campus.

POPULATION COMPRISED:

Comprised in New Town Development Planning Area:

1.3.02 The total population of the six villages as per 1971 and 1981 census are 14707 and 18098 respectively. The population of the surrounding village has increased by 2.53% against the growth of the population of Madurai which is 29.25% during the year 1980-81. The growth of popula-tiona and decennial variation of New Town Development Area are tabulated in Table No. 1-

Table No. 1.

Decennial Population and variation of Population.

Year	Population	Population variation	Percentage variation.
1961	12,102	--	--
1971	14,707	2,605	21.52
1981	18,098	3,391	23.07

Source: Census of India.

Sex ratio

1.3.03 The sex ratio of the population in the environs is found to be 1004 in the year 1981 as the sex ratio in the year 1971 was 895.

Table No. 2.

The sex ratio in Palkalainagar Planning Area.

Year	Total	Males	Females	Females per 1000 males.
1961	12,102	6,238	5,864	940
1971	14,707	7,761	9,946	895
1981	18,098	9,030	9,068	1004

Source: Census of India.

LITERACY

1.3.04 The literacy rate works out to 31.72% to the total population in the year 1971 out of which, males literates and females constitute 74% and 26% respectively to the total literates. The literacy rate is comparatively lower than the Madurai District.

Occupational pattern.

1.3.05 In the year 1981, out of the total population of 18,098, 6071 are workers and the percentage rate worksout to 35% which is higher than that of Madurai District.

Economic Activity:

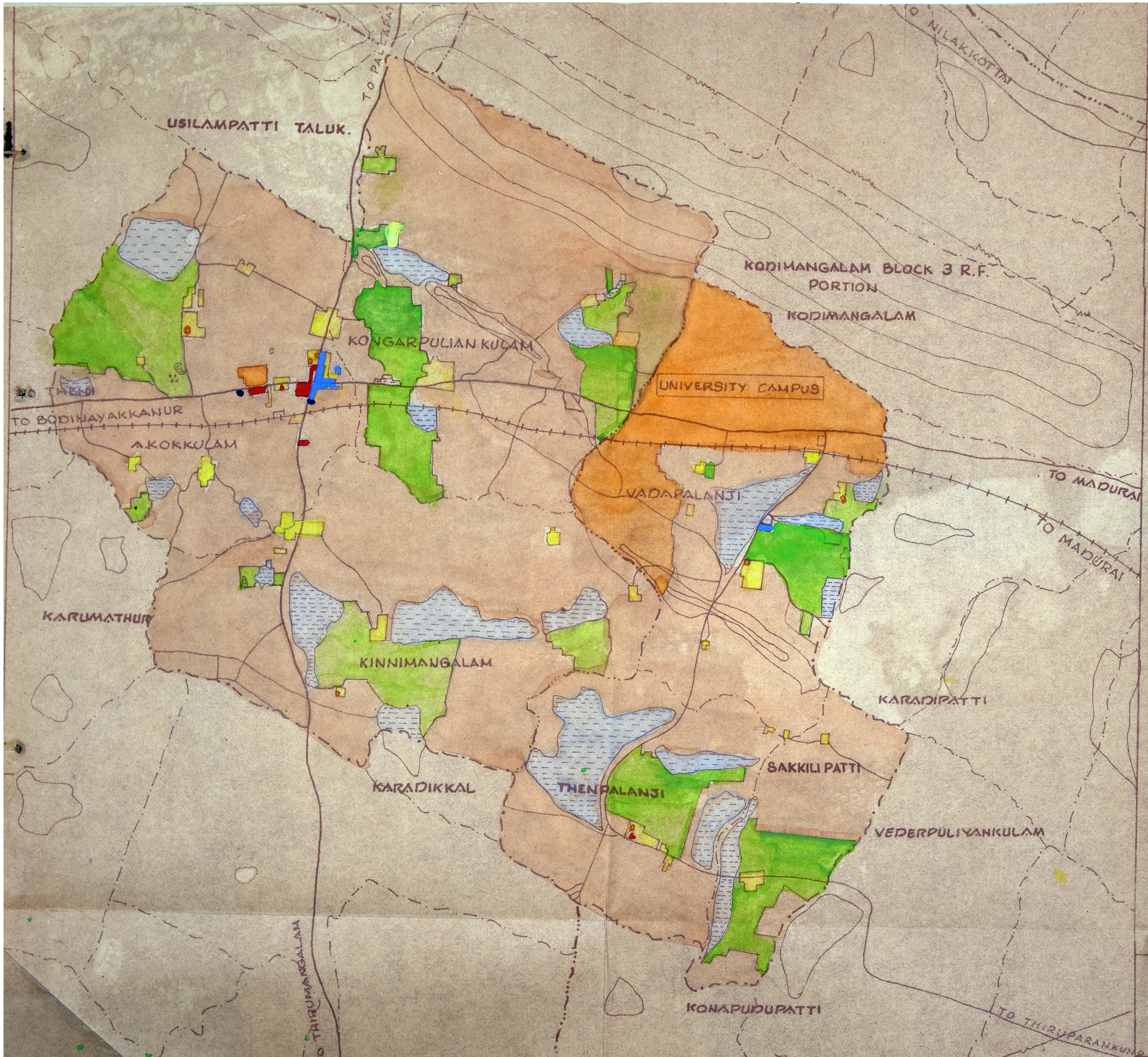
Table No. 3.

Percentage of workers is cleasified occupations.

Sl.No.	Category of workers	persons	Percentage to total workers
I.	PRIMARY SECTORS		
	Cultivators	2801	39.15
	Agricultural labour	2663	37.18
	Livestock, Forestry Fising	47	0.65
	Mining and quarry	525	7.33
II.	SECONDARY SECTOR		
	House hold Industry	98	1.37
	Other than household Industry	121	1.68
	Construction	97	1.35
III.	TERTIARY SECTOR		
	Trade and Commerce	265	3.70
	Transport and Communication	59	0.82
	Other Services	485	6.77
	Total workers	7161	100.00
	Non workers	10937	

Sources: Census of India.

It can be seen from the above table that the agricultural activity is prodominent one and purticipation in secondary sector is low.



PALKALAINAGAR NEW TOWN DEVELOPMENT AREA

NEW TOWN DEVELOPMENT PLAN

EXISTING LAND USE – 1985

LEGEND

- N.T.D.A BOUNDARY
- TALUK BOUNDARY
- VILLAGE BOUNDARY
- ROADS
- RAILWAYS
- TANKS
- HILLS
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- EDUCATIONAL
- PUBLIC AND SEMI-PUBLIC
- AGRICULTURAL (WET / DRY)
- VACANT

(ஒப்பம் ------)
உறுப்பினர் செயலர்
பல்கலைப் புதுநகர் அபிவிருத்திக்குழுமம்
மதுரை

(ஒப்பம் ------)
நகர் ஊரமைப்பு துணை இயக்குநர்
மதுரை

Scale: 0.5 – 0 – 1 – 2 KM; 0.5 – 0 – 0.5 – 1 – 1.5 MILES.

DIRECTORATE OF TOWN & COUNTRY PLANNING
GOVT OF TAMILNADU

DTCP	M	85
MR	MP	85

LAND USE:

1.4.01 The extent of the six villages comprised New Town Development Area is 3785.00 Hectares. Out of this the developed area of 505 hectates constitutes 13.34 percent of the total area of the planning area. The remaining 86.66% (3280.00) constututes the undeveloped area comprising of agriculture lands under water, openspace, waste, quarries and reserved forest.

The existing land use is given as follows.

Table No. 4.

Existing land use 1985.

Land use	Existing area in Hectares.
Residential	78.26
Commercial	0.76
Industrial	0.49
Education	8.11
Public Semi public	3.07
Transportation	113.16
University	301.15
Agr culture	
Wet land	433.50
Dry land	1943.76
Vacant land	324.59
Land under water	391.61
Hillocks	186.54
Total	3785.00

Source: Field survey conducted by the Regional Office

Residential:

1.4.02 The area under this use is 78.26 hectares which forms 15.48 per cent to the developed area. The residential areas are found in various locations of the planning area as shown in the map. The density is on average35 persons per hectares.

Educational:

1.4.03 The New Town Development area as notified already by the Government is 3785 Hectares comprising of six villages, out of which 301.15 Hectares being the University campus.

The strength of the staff of the University at present is 882 including teaching and non teaching staff. The students strength isroughly 12,000.

The study of the planning area has been made in order to assess the future development of the surrounding areas without any impact on the University campus by providing all amenities to the University like, educational, medical, commercial, religious and transportation facilities.

Table No. 5.

Strength of students in schools and land utilisation.

Sl.No.	Classification	No.	Male	Female	Total	Extent in hectar
1.	Primary school	1	53	32	85	0.003 including playground.
2.	Elementary school	1	1106	831	1937	2.00 including playgrounds.
3.	Higher secondaryschool	1	900	448	1348	5.58 "
4.	Industrial Training Instutute	1	82	-	82	0.28 No play ground
5.	University	1	36224	17793	54017	292.40 including playgrounds
6.	Middleschool (Panchayat Union	1	169	111	280	0.01 No play ground.

Source: Fiel survey conducted by the Regional Office.

Totally there are one I.T.I., one higher secondary school and eleven elementary schools functioning in the town and the total number of students studying in these instututions in 3732 other than the students of the University.

Tabl No. 5(a)

DETAILS OF UNIVERSITY STUDENTS STRENGTH

1. Statement showing the number of tudents as on 1st December 1983 in the various courses conducted in the colleges including the Evening college of the University.

Course	Men	Women	Total
A. Arts and Sciences:			
i. B.A. degree courses			
English Medium	7874	5568	13442
Tamil Medium	2421	2932	5353
ii. B.Sc. Degree course			
English medium	11231	7494	18725
Tamil medium	91	628	719
iii. B.Sc., Home science	-	273	273
iv. B.Music	3	42	45
v. B.Com.	7935	3288	11223
vi. B.B.A.	1187	-	1187
vii. Post-Graduate Degree			
1. M.A.	1100	1033	2133
2. M.Sc.,	940	687	1621
3. M.Com.,	667	205	872
4. M.Music	1	6	7
5. M.Phil	26	30	56
6. Ph.D.	17	14	31
B. Professional			
a. Medical			
1. M.B.B.S.	1123	612	1843
2. M.D. (Medicine)	15	6	21
3. P.G. (Medicine)	149	40	189
4. B.Pharm	46	23	69

Course	Men	Women	Total
5. M.D. (Siddha)	10	5	15
6. B.S.M.&S.	265	98	363
7. D.Pharm(Indian Medicine)	27	22	49
C. Engineering			
1. B.E. (Full-time)	2154	378	2538
2. B.E. (Part-time)	426	5	431
3. B.Sc. Applied science	99	11	110
4. M.Sc. applied mathematics	25	2	27
5. M.E.	61	3	64
d. Law			
1. B.G.L.	611	53	664
2. B.L.	214	10	224
3. M.L.	12	2	14
e. Teaching:			
1. B.Ed.	331	513	884
2. M.Ed.	5	4	9
f) Physical Education			
1. B.P.Ed.,	-	110	110
2. M.P.Ed.,	-	50	50
g) Others			
1. 2(d) Pulavar	23	42	65
2. Dip.in Personal management and industrial relations	45	3	48
3. P.G.Dip.in Personal management & indus-traial relations	53	-	53
4. Dip.in Business Administration(Part time)	39	-	39
5. Cert in Gandhian thought	112	135	247
6. Cert in Indian culture	2	-	2
7. Cert in Lingustics	1	-	1
8. Cert in Journalisam	6	-	6
9. Cert. in German	13	3	16

10. cert. in Rural Development	10.	3	13
11. Dip. in guidance and counselling(Parttime)	15	1	16
12. Dip. in Gandhian thought	18	11	29
13. Dip. in Office Management	25	-	25
14. Dip. in Journalisam German	6	1	7
15. Dip. _ in Management	10	-	10
16. Dip. in Germon	6	1	7
17. Dip. in Geography	1	-	1
18. Dip. in Lingustics	2	-	2
19. Dip. in Community Health and Development	4	1	5
20. P.G.Dip. in Applied Nutrition and Dietetics	7	3	10
EVENING COLLEGE:			
Diploma Courses	29	-	29
Certificate course	50	-	50

Table No. 5(b)

Statement showing the number of students as on 1st December, 1983 in the various Departments of the University.

Courses	Men	Women	Total
1. M.A.	19	11	30
2. Tamil	19	11	30
3. Linguistics	17	3	20
. English	23	16	39
. French	4	9	13
History	42	13	55
Economics	42	5	47
Sociology	16	20	36
Sociology (P GExtn centre, Palayamkottai)	18	-	18
Political Science			
Malayalam	31	10	41

Course	Men	Women	Total
2. M.Sc.,	5	4	9
Mathematical Economics	19	8	27
Physics	27	5	32
Chemistry	12	10	22
Chemistry(P.G.Exten.Centre Palayankottai	10	13	23
Biology	30	12	42
Geography	4	27	31
Peace making	24	1	25
Geography (Part-time)	1	-	1
3. M.Phil			
Tamil	16	14	30
English	18	7	25
History	19	7	26
Geography	2	6	8
Economics	19	6	25
Sociology	5	8	13
Mathematics	16	9	25
Education	2	4	6
Political Science	5	-	5
Sanskrit	-	1	1
Energy	5	1	6
Physics	6	2	8
Chemistry	9	3	12
French	-	5	5
Biology Scien ce	22	11	33
4. M.Ed.,	3	1	4
5. BLISC	21	16	37
6. MILSC	4	2	6
M.B.A.(Full-time)	46	4	50

Part-time Certificate and Diploma Courses:

1. Certificate in French	49	8	57
2. Certificate in Kannada	2	1	3
3. Certificate in Telugu	2	2	4
4. Certificate in Sanskrit	3	2	5

Course	Men	Women	Total
5. Certificate in Malayalam	4	-	4
6. Diploma in French	9	-	9
7. Diploma in Kannada	2	1	3
8. Diploma in Malayalam	1	4	5
9. Higher Diploma in French	7	3	10
10. Diploma in Telugu	2	6	8
11. Diploma in Geography	3	-	3
	278	118	396

Table No. 5C

Statement showing the number of students as on Ist December 1983 in the Institute of Correspondences Courses and continuing Education of the University.

Courses		Men	Women	Total
B.A.				
History	First year	1921	1104	3025
	Second year	865	1787	2652
	Third year	738	346	1084
Economic	First year	845	434	1279
	Second year	547	272	819
	Third year	421	141	562
Political Science				
	First year	244	61	305
	Second year	211	54	265
	Third year	165	31	196
Social Sciences	First year	94	51	145
	Second year	69	47	116
	Third year	83	48	131
Geography	First year	23	22	45
	Second year	12	15	27
	Third year	28	12	40

Courses		Men	Women	Total
Tamil	First year	256	210	466
	Second year	146	134	280
	Third year	191	129	320
English	First year	286	96	382
	Second year	136	176	312
	Third year	153	161	314
B.Sc.				
Mathematics	First year	424	206	630
	Second year	274	133	407
	Third year	265	103	368
B.Com.	First year	4843	2493	7336
	Second year	2990	1432	4422
	Third year	1992	743	2735
B.A.				
History	First year	910	646	1556
	Second year	953	814	1767
Political				
Science	First year	1286	450	1736
	Second year	1770	363	2133
Economics	First year	1195	339	1534
	Second year	943	407	1350
Tamil	First year	285	308	593
	Second year	430	367	797
English	First year	-	500	1090
	Second year	735	680	1360
Gandhian	First year	198	37	235
	Second year	322	50	372
M.Com.,	First year	2094	509	2603
	Second year	2244	516	2760
B.G.L.	First year	1194	92	1286
	Second year	738	52	790
B.Ed.,	First year	616	495	1111
M.Ed.,	First year	828	452	1280
		17156	11690	38846

UNIVERSITY AUTHORITIES

A. Chancellor	..	1
b. Pro-chancellor	..	1
c. Vice Chancellor	..	1
d. Registrar-incharge	..	1
e. Finance Officer	..	1
f. Dean	..	1
g. Special Officer	..	1
h. Deputy Registrar	..	1
i. Public Relations Officer		1
j. Assistant Registrars	..	1
EXAMINATION.		
a. Controller of Examination		1
b. Deputy Registrars		3
c. Assistant Registrars		2
INSTUTUTE OF CORRESPNDENCE COURSE AND CONTINUING EDUCATION:		
a. Director		1
b. Additional Director		1
c. Deputy Directors		2
d. Deputy Registrars		2
e. Assistant Registrars		3
OTHER DEPARTMENTS:		
Depart of Youth Welfare (Director		1
N.SS.Department (co-ordinate incharge)		1
Dept., of Adult Education (co-ordinator)		1
Publications Officer		1
Physical Education		1

INDUSTRIAL USE:

1.4.04 There is no major industry worth mentioning in the area except a few rice and flour mills and one stone crushing industry. This indicates the lesser tempo in respect of industrial growth.

PALKALAINAGAR NEW TOWN DEVELOPMENT AREA

NEW TOWN DEVELOPMENT PLAN

LOCATION OF EDUCATIONAL RELIGIOUS HEALTH & RECREATIONAL INSTITUTIONS

LEGEND

- N.T.D.A. BOUNDARY
- TALUK BOUNDARY
- VILLAGE BOUNDARY
- ROADS
- RAIL WAYS
- TANKS
- HILLOCKS
- ELEMENTARY SCHOOL
- HIGHER SECONDARY SCHOOL
- PRIMARY HEALTH CENTRE
- MATERNITY CENTRE
- LIBRARY
- RELIGIOS CENTRE
- CINEMA THEATRE
- VETERINARY HOSPITAL
- INDUSTRIAL TRAINING INSTITUTE

(ஒப்பம் --------) உறுப்பினர் செயலர் பல்கலைப் புதுநகர் அபிவிருத்திக்குழுமம், மதுரை	(ஒப்பம் --------) நகர் ஊரமைப்பு துணை இயக்குநர் மதுரை

1 0.5 0 1 2 K.M.
0.5 0 0.5 1 1.5 MILES

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TRANSPORT AND COMMUNICATION:

1.4.05 The Transport and Communicationuses worksout to 110 hectares, constituting 22.45% of the total developed area. The major District roads viz. Madurai-Theni road and Thirumangalam-Pallapatti road pass through this area.

Railways:

1.4.06. Madurai-Bodinayakkanur Railway line passes through this area with stations at Kilakuilkudi and t Vadapalanji villages.

UTILITIES AND SERVICES.

1.4.07 protected water supply is available only in a very few parts of the whole area, open well watersupply system is being utilised to meet the needs of the area. There is no proper drainage system implemented in the area. For the University water is drawn bybore wells, stored in two overhead tanks and supplied within the Campus.

Medical:

1.4.08 There exists two primary health centres in this area to meet the health requirements of the Campus area.

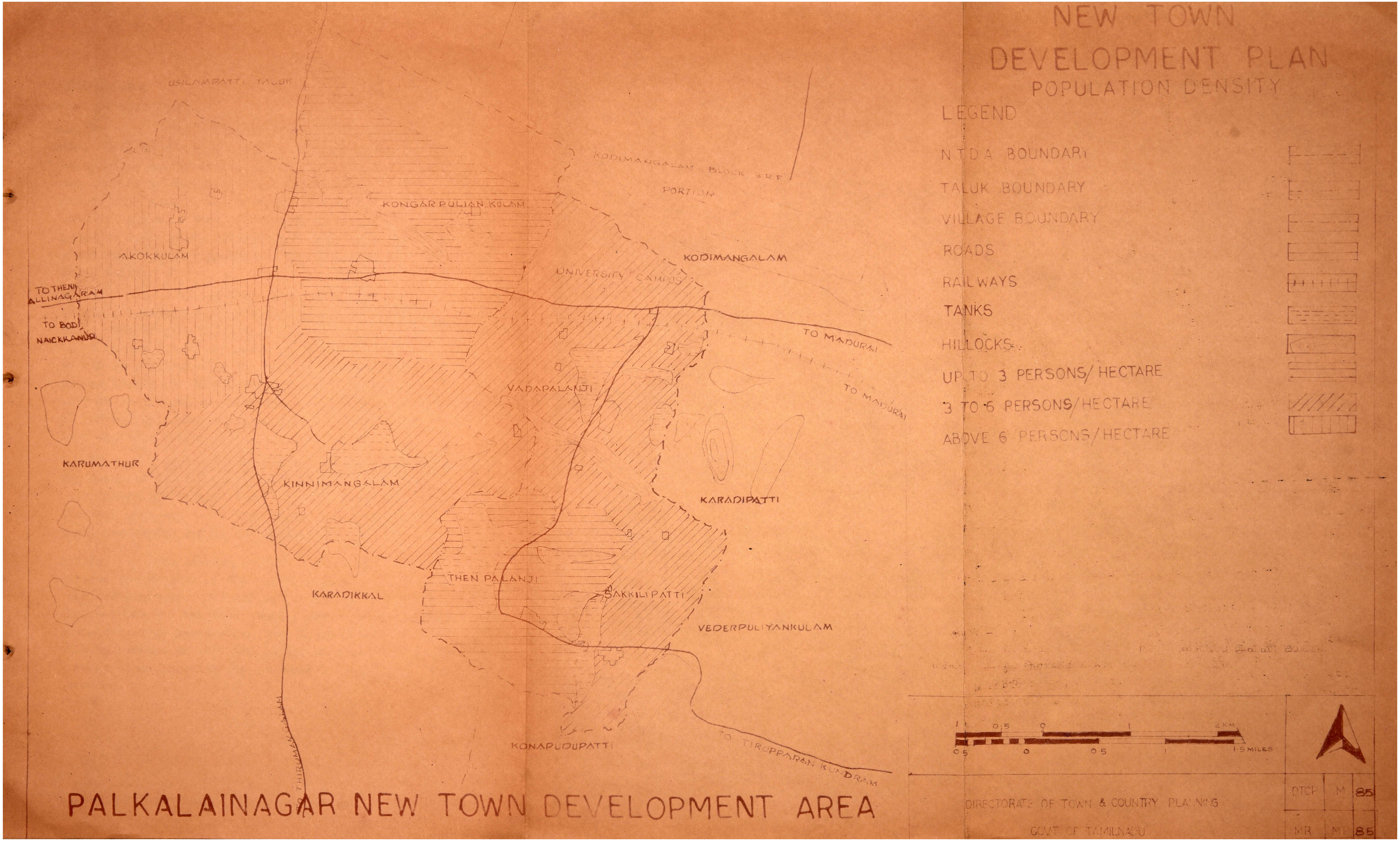
Table No. 6. MEDICAL FACILITIES

Sl.No.	No.of Units	Classifications	Bed strength	No.of Doctors	Extent
1	2	Primary Health Centre	18	6	1.9 hec.
2.	1	Maternity centre	2	1 nurse	200sq.ft.

RECREATIONS:

There is no recreation facilities except a Cinema Theatre in Madurai-Usilampatti road near Sekkanurani.

The above factors indicate that the area is having an increasing trend in population growth which is comparable with Madurai. The undeveloped land 3280 hec. constituted 86.66% which needs proper planning. There is absence of adequate basic facilities in respect of health education and recreation.


NEW TOWN
DEVELOPMENT PLAN
POPULATION DENSITY
LEGEND
N.T.D.A. BOUNDARY
TALUK BOUNDARY
VILLAGE BOUNDARY
ROADS
RAILWAYS
TANKS
HILLOCKS
UP TO 3 PERSONS/ HECTARE
3 TO 6 PERSONS/HECTARE
ABOVE 6 PERSONS/HECTARE
USILAMPATTI TALUK
KODIMANGALAM BLOCK R.F. PORTION
KONGARPULIAN KULAM
A.KOKKULAM
KODIMANGALAM
UNIVERSITY CAMPUS
TO THENI ALLINAGARAM
TO BODI NAICKKANUR
TO MADURAI
TO MADURAI
VADAPALANJI
KARUMATHUR
KINNIMANGALAM
KARADIPATTI
THEN PALANJI
KARADIKKAL
SAKKILIPATTI
VEDERPULIYANKULAM
KONAPUDUPATTI
TO TIRUPPARAN KUNDRAM
THIRUMANGALAM
0.5 0 1 2 KM
0.5 0 0.5 1 1.5 MILES
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MR M 85
PALKALAINAGAR NEW TOWN DEVELOPMENT AREA

CHAPTER - II.

SCOPE OF URBANISATION:

2.1.01 The Palkalai Nagar is very close to Madurai city. Thesite of campus is more or less plain without any steep slope and irregular topography. The site in which the university campus develops has been chosen after considering site conditions, setting, accessibility and cost. The new campus at foot of Kodimangala hillock (R.F.) at Latitude 9.55° north and Longitude 78° East. It apreads about the revenue boundary of Vadapalanji village of Madurai South taluk.

2.1.02 The population of the Planning area has been steadily increasing and the variation is given in the table No. 1 The maximum population which could be allowed will be based on the future expansion of the town. The possible growth of population in the town in 1991 and 2001 will be around 23,000 and 28,000 respectively. This figure is adopted, will need an allocation of resources to accommodate an additional population of 4902 and 9902 in the years 1991 and 2001 respectively.

2.1.03 Augmentation of water supply projects to cater the needs of the future population has to be attended. It also needs allocation of more funds. Further underground drainage work has to be undertaken in a phased manner by Tamil Nadu Water Supply and Drainage Board.

2.2.00 The present overall density works out to be 35 persons per hectare of the planning area (excluding the agriculture use). The desirable density is assumed to be 200 persons per hectare. This posess a problem for finding an alternative residential area to an extent of nearly 115.00 hectare in 1991 and 140.00 hectares in 2001 respectively to accommodate the increase in population over the decades.

2.3.00 There is no declared industrial areas for the planning area of this new town but an area of 4.5 hec. tares is suggested by Director of Town and Country Planning in Kokkulam village. The future plan can be organised with a basis that the New Town can be an Educational town centre to accommodate and distribute the staff and students.

2.4.00 Within the Planning area the village Kokkulam is only developing along Theni-Madurai road and Thirumangalam Pallapatti road. The Planning area consists of many tanks and agricultural fields and any development has to be done on the dry lands available within this areas.

2.5.00 Many of the important development existance of Vellaisamy Nadar Arts college, Jayaraj nadar Higher secondary school exist at Karadipatti village have taken place beyond the Palkalainagar New town Development Area. These villages are included in Madurai Local Planning Area.

2.6.00 The functions of the University is growing with addition of new departments in various fields of education. This results in growth of staff members and students, which warrents the provision of Residential quarters, Educational facilities for their children, medical facilities, community centre, shopping facilities and recreational facilities. This requires more lands for the expansion of Palkalainagar.

CHAPTER - III.

PLAN OBJECTIVES

3.0.00 The main objective of studies made is to design a development plan, to guide an orderly development and to promote health, safety and convenience of the community. The following assessments are made taking into consideration the studies so far made in this report.

3.1.00
1. Future population of the Planning Area and its requirements.
2. Land requirement for urban development;
3. Requirements of Traffic and Transportation Expansion of services and Housing needs.

PROJECTS OF POPULATION AND ITS REQUIREMENT:

3.2.00 It is proposed to prepare plan projecting the requirement for the year 2001 because, by that time the University is expected to function with its full strength. The villages Vadapalanji, Thenpalanji, Sakkilipatti, Kokkulam, Kongarpuliyankulam and Kinnimangalam are taken up for study purposes. The study of the Planning Area has been made in order to assess the future development of the surrounding area without any impact on the University campus. The study of the existing population, sex ratio, literacy etc., of the Planning Area has been made in the previous Chapter.

3.3.00 The population projection of the six villages of the planning area has been worked out and tabulated. The requirements for the future population such as the residential area, commercial area, industrial area, space required for educational institutions, space of hospital, area for recreational facilities have been worked out in detail and tabulated. Future size of the village accommodating all the proposed uses are shown in Map.

TOWN CENTRE:

3.4.00 Since Palkalainagar has to be laid out on barren and vacant lands of the villages which do not have any urban facilities such as higher secondary schools, hospital, parks and play fields, community centre, shopping complex, market, administrative buildings, religious buildings etc. a town centre comprising the above facilities is a must in the development plan proposed in the Palkalainagar. Accordingly, a town centre with an extent of 66.37 hectares has been proposed in the area adjacent to the university campus. The location of the town centre is so chosen that it could serve not only for the population of the surrounding villages but also to the staff members of the university and servicing population of the same. The urban facilities should be so arranged in the town centre, that the University staff members can easily avail the facilities and reside in the quarters provided in the Campus itself.

3.5.00 The community participation is totally absent since there is no community centre common to the six villages of the New Town Development Area. The creation of a town centre including organised parks, open space and social clubs will give opportunities for social gathering. Building a better community will be National asset.

3.6.00 The Plan aims at providing an organisation responsible for co-ordinating and monitoring the planning activities. The Town and Country Planning Act of 1971 provides for the constutition of New Town Development Authority for this area. Accordingly the Government in G.O.Ms.No: 1113 of H&UD dt. 27.6.79 have constituted a new Town development Authority consisting of the Collector of Madurai District as Chairman, five members including Deputy Director and Registrar of the University and the Assistant Director of Town and Country Planning of Madurai Region as Member Secretary. In order to take of development works anticipated in the plan, it is imperative to have a separate Member Secretary with supporting staff, for which provision of funds has to be made.

CHAPTER - IV

4.0.00 POLICY TOOLS

4.1.00 Land Development Policy:

4.1.01. The ultimate population for the town in 1991 and 2001 is assessed to 23000 and 28000 respectively. The overall requirement of land for urban uses will be assumed as 74.68 hectares and 57.60 hectares at the end of 2 decades.

The proposed Land Use is shown in map and is given in the following tables.

Table No. (7)

LAND REQUIREMENT

Decade	Existing land in Hectare	Required Land in Hectare	Additional land in hec.
1981-1991	505	580.15	74.88
1991-2001		637.75	57.60
			132.48

4.1.02 The total extend of the New Town area is 3785.00 hectares, out of which 3280.00 hectares (ie) nearly 86.66% is occupied by lands put into agriculture, land under water, hillocks and vacant lands. This shows that a considerable amount of land within Planning Area is left to Non-urban uses. The Development policy will have to include the following.

1. Preservation of potential agricultural lands.
2. Whether possible the less profitable agricultural dry land and vacant lands shall be brought for urban uses

PALKALAINAGAR NEWTOWN DEVELOPMENT AREA

NEW TOWN DEVELOPMENT PLAN

HOUSING DENSITY

LEGEND

N.T.D.A BOUNDARY

TALUK BOUNDARY

VILLAGE BOUNDARY

ROADS

RAILWAYS

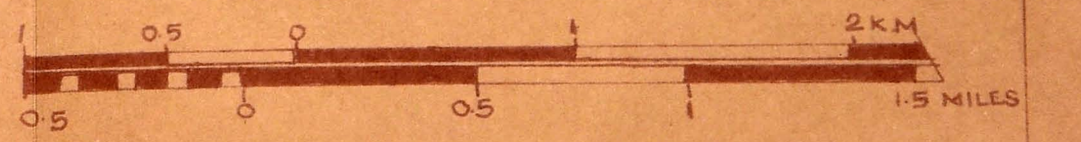
TANKS

HILLOCKS

HOUSES PER SQ K.M

51 TO 100

ABOVE 100



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when the town demands it. With the above said policy frame work, the lands required for future urban uses are worked out and tabulated above. The land selected for immediate development should be very near to the existing residential areas for reducing the cost of services.

4.2.01 Community Development Policy:

As stated previously, future population of the town has been estimated to reach 21,000 and 25,000 in 1991 and 2001 respectively as projected by the Directorate of Town and Country Planning, Madras. The family size is assumed to be 5. It is one of the objectives of this plan to create a community centre. Atleast one community space is to be planned for every 500 families for creating a residential group to promote a sense of belonging among the urban community. Each centre will be roughly to an extent of 2.5 hectares. They will be so located with the accessibility for residential units as the criteria and linked to the educational institutions.

HOUSING POLICY:

4.2.02 Housing is an important factor which influence the health, happiness and general well being of the people to a greater extent. Assuming a size of 5 persons per house hold, the houses required in 1991, and 2001 will be and respectively as given in Table No. 8.

Table No. 8

HOUSING STOCK REQUIRED IN DURING THE YEAR 1991-2001.

Decades	Number of households	HousingUnits	Addl.units.
1981-1991	5325	4376	949
1991-2001	6406		1081

The future requirement of housing is workedout with the standard of 1 household per house as a basi .

UNIVERSITY STAFF QUARTERS:

4.3.01 The provision of residential quarters for a large number of employees of the university is invitable in view of the location of the university at a place which is outside the city limits and where no residential accommoda-tion is easily available. There is a basic necessity apart from the fact that by such provis on greater devotion to work and efficiency in work can be expected from the staff of the university office and departments is likely to be hampered if the staff members are compelled to live for away, it is quite necessary that the university should provide resi-dential quarters in the campus for as many employees as possible.

4.4.00 STANDARDS OF URBANISATION:

4.4.01 The present source of water supply is only wells dug by the villages of the Planning Area. No protected water supply system is existing in the village. But in the University campus the water is drawn from bore wells, stored in two overhead tanks and supplied to the campus requirements water supply is to be improved, by an water supply scheme by the Tamil Nadu Water Supply and Drainage Board.

The Planning Area is not provided with under-ground drainage system. A part of the sewage is cleared by the carts and the rest of the sullage water is let into tanks nearby.

4.4.02 RANSPORTATION:

The roads are the only main means of communication system. There is a need for improving the road leading to Vadapalanji to Thenpalanji and for also filling the missing links. This has been included in the development policy. The old roads have been proposed to be widened or improved. The existing bus stand at Kokkulam village is having a limited space. Hence there is an urgent need tohave a pucca bus stand with all facilities and the same is to be improved.

4.4.03 PROPOSED CIRCULATION PATTERN OF THE PLANNING AREA:

For a successfull solution to the transport problems land use planning and transport planning should be integrated and a satisfactory road system must be designed as a co-ordinated part of the development plan and not as an isolated one.

The object of the proposed road pattern for the planning area is to have a direct and close link between villages, university campus and the town centre. Therefore a road of width 80' has been proposed to connect all the villages the town centre and the university campus.

4.4.04 PROPOSED ROAD PATTERN OF THE UNIVERSITY NEW TOWN:

In the existing town, the Madurai Bodinayakkanur Major District road passes through the ca pus more or less in the middle. Therefore allowing the direct traffic through the University Campus is not advisable. So a road of80' width has been proposed in the northern boundary of the campus with least distrubance to the campus and also to avoid too many crossings with "Railways" thus diverting through traffic from Madurai to Bodinayakkanur. The existing road which connects the University campus to Madurai maintained as it is and it will serve as a service road inside the campus.

PRESERVATION OF AGRICULTURAL LAND:

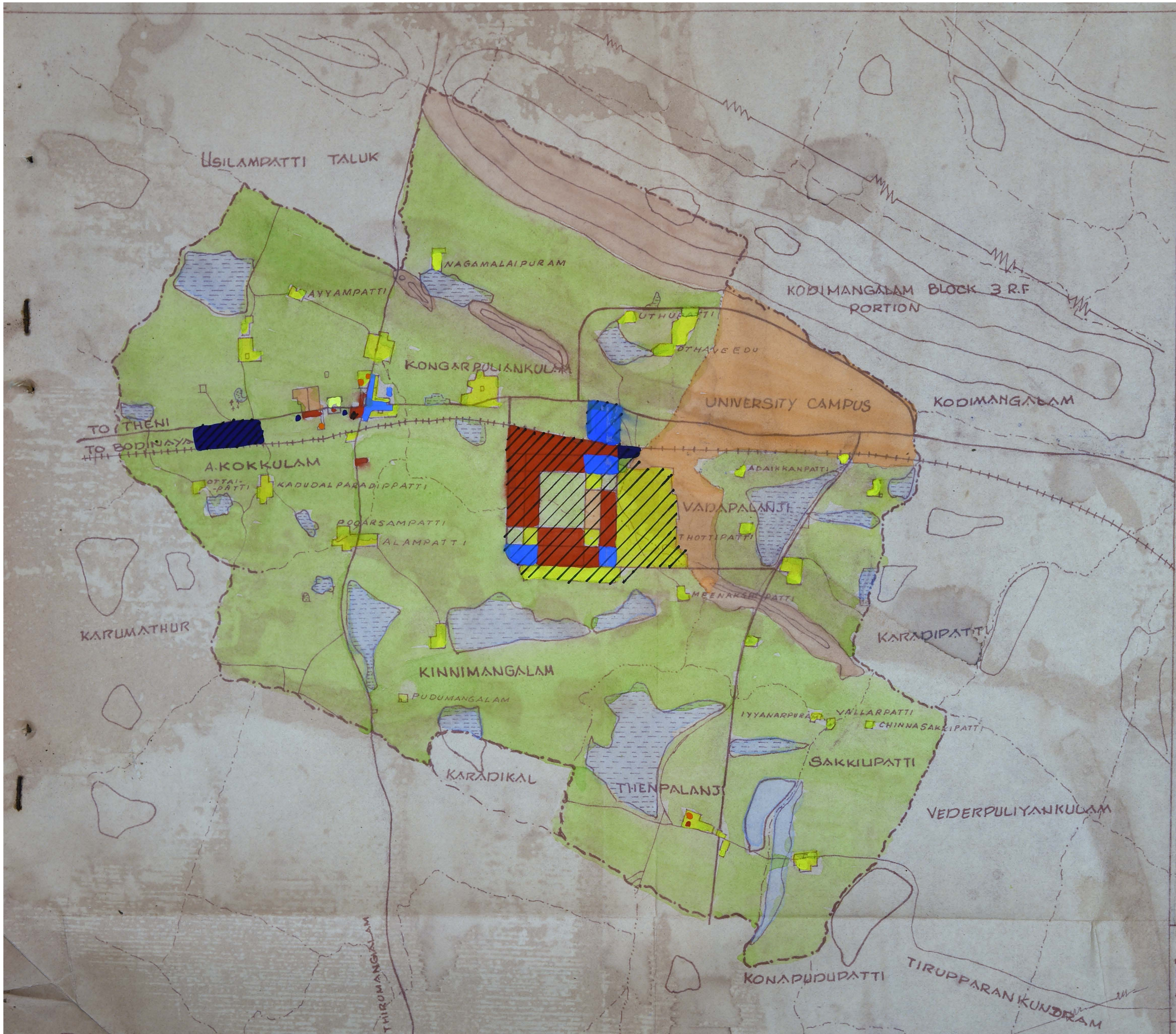
As seen from the existing land uses it is observed that the hamlet of Kokkulam village called Sekkanurani has shown greater development than the other settlements. There is a greater possibility of residential and other allied developments which may take place along the main roads. At present there is a vast strip of agricultural wet lands in between the University premises and Kokkulam hamlet (Sekkanurani), Hence there is an urgent need to preserve the agricultural belt as it is so as to avoid any menace to the environment of the University and keep the University campus free from any other infringing developments. This aspect has been taken care of in the plan prepared.

HOUSING:

At present the number of university staff worksout to 900 including teaching and non-teaching. Already 100 number of residential quarters are available. Hence the additional number of quarters required worksout to 800. For the year 2001, 25 percent of this requirement is assumed as an increase for proposed staff members. On this basis the residential quarters will be 1000 in 2001. These housing facilities will be provided near the university campus so that the staff members would reach their work place and return home.

4.4.05 EDUCATIONAL:

The area of the University campus is 750 acres at present. This area comprises of administrative buildings, various department buildings, hostels and residential quarters besides these buildings the university campus consists of sports grounds, Parks, Gardens, Post and Telegraphs, Banks and University Press etc. These developments will account only 40 percent of the total area is available for the future development of the University campus, which is supposed to be sufficient for the expansion of the University in future. Hence no additional land is reserved for the university campus.



PALKALAINAGAR NEW TOWN DEVELOPMENT AREA

NEW TOWN DEVELOPMENT PLAN

PROPOSED LAND USE-2001

LEGEND

N.T.D.A BOUNDARY

TALUK BOUNDARY

VILLAGE BOUNDARY

ROADS

RAILWAYS

TANKS

HILLOCKS

	EXISTING	PROPOSED
RESIDENTIAL		
COMMERCIAL		
INDUSTRIAL		
EDUCATIONAL		
PUBLIC & SEMIPUBLIC		
AGRICULTURAL		

PROPOSED ROADS

(ஒப்பம் ------)
உறுப்பினர் செயலர்
பல்கலை புதுநகர் அபிவிருத்திக்குழுமம்
மதுரை

(ஒப்பம் ------)
நகர் ஊரமைப்பு துணை இயக்குநர்
மதுரை

0.5 0 1 2 KM
0.5 0 0.5 1 1.5 MILES

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TABLE NO. 9

FUTURE LAND REQUIREMENTS FOR THE DECADES 1991 and 2001.

Land use	Esistang area in hectares(1985)	Standard adopted	1991 23000	2001 28000
Residential	78.26	200 persons/ha	115.0	140.0
Commercial	0.76	0.4ha/1000 person	9.2	11.2
Industrial	0.49	0.4ha/1000 persons	9.2	11.2
Education	8.11	One primary school for every 300 students one Higher Secondary school for every 1000 studens 2 ha	11.0	13.0
Public Semi public	3.07	0.4ha/1000 persons	4.6	11.2
Transportation	113.43	-	130.0	150.0
University	301.15	-	301.15	274.15
AGRICULTURE:				
Wet land	433.23	-	433.23	433.23
Dry land	1943.76	-	1865.39	1837.28
Vacant land	324.59	-	324.59	324.59
Land under water	391.61	-	391.61	391.61
Hillocks	186.54		186.54	186.54
Total	3785.00		3785	3785

4.4.06 RELIGIOUS BUILDING.

At present there is no religious building such as temple, mosque or church either within or adjacent to the University campus. Consequently the staff of the University prefer their residence to be near such facilities where they are available.

This results that most of the staff members are having their residence in Madurai city which is not so conducive for the function of the University. As such the New Town development Plan should have adequate provision for the accommodation of religious buildings.

Hence 10 hectares of landhas been reserved for this purpose.

4.4.07 OTHER SERVICES:

The provision of other services like Posts and Telegraphs, Telephone, Fire Service Station, Police Station etc. is made at the rate of 0.1 hectare for every 1000 people and the land is not specifically allocated but included in the area reserved for public and semi-public purpose.

4.4.08 As discussed above, the land requirements for various land uses such as residetial, commercial, industrial, educational, public and semi public, traffic and transportation have been worked out for the plan and tabulated in Table No. 9.

4.5.00 ADMINISTRATIVE POLICY:

The New Town Development areas administration is looked after by the New Town Development Authority which is constituted for this New Town by the orders of the Government in G.O. Ms.No. 1113, Rural Development and Local Administration (Housing and Urban Development Department) dated 27.6.1979. The powers are provided in the Town and Country Planning Act 1971 to investigate and formulate schemes to the Development of the New Town Area for both present and future.

The provision of services like housing and Water supply can be looked after by the Tamil Nadu Housing Board and Tamilnadu Water Supply and Drainage Board, respectively. Theconstruction of University buildings which require technical skill may be entrusted to the Public Works Department. The New Town Devleopment Authority may utilise the assistance and services from these agencies. In addition to th's New Town Development Authority may under take the works relating to the development of the New Town and execute them by getting necessary funds from the Government.

4.6.01 In order to implement the proposals contained in the New Town Development Plan certain essential zoning regulations will have to be framed andenforced. The developments will be controlled according to the zoning regulations issued by the Government in G.O.Ms.No. 1730, Rural development and Local Administration Department dated 24.7.1974. It has to be enforced by the New Town development Authority while granting planning permission under section 19 of the Town and Country Planning Act, 1971.

4.6.02 USE ZONE AREAS AND USES PERMITTED:

The use zones and uses permitted are given in G.O.Ms.No. 1730 Rural Development and Local Administration Department dated 24.7.1984 (Annexure-A) The survey numbers comprised in the use zones are given in the annexure B.

4.6.03 The zoning regulations and the S.Nos. comprised under each zone have been prescribed as part of this New Town Development Plan and all the development s within the Planning. area, shall be in conformity with the zoning regulations and the planning permission shall also be regulated accordingly by the New Town Development Authority.

4.6.04 The Survey numbers earmarked for roads and for specific purposes in the Town centre area shall be used for the specific purpose only.

CHAPTER - ..

PROGRAME FOR IMPLEMENTATION.

5.00.00 The implementation of the Palkalainagar New Town Development Plan is a formidable task which requires team work drawing on specialised knowledge from a wide range of disciplines. The New Town Development Authority has to formulate various action programmes within the frame work of this development plan. The action programmes should include preparation and implementation of a number of Detailed Development Plans of the planning area as well as Programmes mainly intended for the provision of essential facilities and construction of buildings for the university campus. This task must have to be attended to by the New Town Development Authority after the sanction of the New Town Development Plan.

PROJECTS IDENTIFIED.

1. Formation of 80' road along the northern boundary of the University campus and southern side of the Campus.
2. Construction of a Town Centre comprising the facilities such as Administrative Buildings, Religious building higher Secondary School community centre shopping complex market, hospital parks and playfields etc.
3. Construction of staff quarters for the University people within their premises.
4. Improvement of existing bus stand at S.F.170 of Sekkanurani hamlet of Kokkulam village.
5. Water supply and drainage schemes for the campus and for the area in which the developments are proposed.
6. Housing scheme for servicing population. Formulation of these projects may be undertaken by the New Town Development Authority and the execution of the projects may be entrusted to the agencies like State Housing Board, and Tamil Nadu Water Supply and Drainage Board, some of the Projects may also be letout for the private developers.

PALKALAINAGAR NEWTOWN DEVELOPMENT AREA.

POPULATION PROJECTION.

PARABOLIC METHOD.

Year n	x	y	x^2	x^3	x^4	x^2y	xy
1961	- 1	12102	1	-1	1	2102	- 12102
1971	0	14707	0	0	0	0	0
1981	plus1	18098	1	1	1	18098	18098
	Σ 0	44907	2	0	2	30200	+ 5996

Hence x = n

$\Sigma x^2 b = \Sigma xy$

$2b = 5996.$ Therefore $b = \frac{5996}{2} = 2998$

$\Sigma x^2 a + nc = \Sigma y$

$\Sigma x^2 a + \Sigma x^2 c = \Sigma x^2 y$

$- 2a + 3c = 44907$

$- 2a \pm 2c = 30200$

Sub: $1c = 14707$

Therefore $c = 14707$

$2a + 2c = 30200$

$2a + 2 \times 14707 = 30200$

$2a = 30200 - 29414$

$2a = \frac{786}{2}$

Therefore $a = 393$

$y = ax^2 + bx + c$

For 1991, $x = 2$

$y = a(2)^2 + 2 \times 2990 + 14707$

$= 4a + 5996 + 14707$

$= 393 \times 4 + 5996 + 14707$

$= 22275$ or <u>23000</u>

For 2001, $x = 3$

$y = ax^2 + bx + c$

$= 393 \times 9 + 2998 \times 3 + 14707$

$= 3537 + 8994 + 14707$

$= 27238$ or Say <u>28000</u>

- - - - - - - - - - -

ANNEXURE - A.

ZONING REGULATIONS.

Copy of G.O. 1730 Rural Development and Local Administration Department dated.24.7.1974.

. . . .

PERMISSIBLE USES IN USE ZONES:

The uses permitted in different use zones are given in the following table.

CONTROL OF DEVELOPMENT AND LAND USE ZONING REGULATIONS:

USE ZONE -

I. Residential use zone:

a. Primary Residential use zone:
Uses permitted:-

1. All residential buildings including single and Multi-family dwellings, apartment dwellings and tenements together with appurtenances pertaining thereto;
2. Professional consulting offices of the residents and other incidential uses therefore;
3. Pettyshops dealing with daily essentials includin g retail provisions, soft drinks, cigarettess, newspapers, milk-koosks, cycle shops and single person tailoring shops;
4. Hair dressing saloons and beauty parloures;
5. Nursery and Primary schools;
6. Taxi and Auto-rickshaw stand; and
7. Parks and play-fields.

(b) Mixea residential use zone -

Uses permitted -

1. All uses permitted under use zone (a) ie. Primary residential use zone;
2. Hostels and single person aprtments;
3. Community halls, Kalyana Mandapams, Religious buildings, welfare centres and Gymnasia;
4. Recreation clubs, Libraries and Reading rooms;
5. Clinics, Dispensaries and Nursing Homes;
6. Government, Municipal and other institutional sub offices;
7. Police Stations, Postand Telegraph offices, Fire Stations and Electric sub-stations;
8. Banks and Safe Deposit vaults;
9. Educational Institutions excluding colleges;
10. Restaurents, residential hotels and other Boarding and Lodging Houses.
11. Petrol filling and service stations;
12. Departmental stores or stores or shops for the conduct of retail business;
13. Vegetable, Fruit, flower, fish, eggs and meat shops.
14. Bakeries and confectionaries;
15. Laundry, Tailoring and Goldsmith shops; and
16. Cottage Industries permissible in residential areas under G.O.Ms.No. 566 dated 13.3.1962.

II. COMMERCIAL USE ZONE - USE ZONE:

USES permitted -

1. All uses permitted in use zones 1(a) and 1(b) ie. Residential use zones;
2. All Commercial and business uses including all shops stores, market and uses connected with the display and sale of mercandise, either wholesale or retail but excluding explosives, obnoxious products and other materials likely to cause health hazards;

3. Business offices and other commercial and financial institutions;
4. Ware-houses, repositories and other uses connected with storage or whole-sale trade, but excluding storage of explosives or products which are either obnoxious or likely to cause health ha zards.
5. Cinema theatres and other commercial entertainments centres;
6. Research, experimental and testing laboratories not involving danger of fire, explosion or health hazards;
7. Transportation terminals including bus stands, railway stations ndd organised parking lots;
8. Automobile repair shops and garages;
9. Small industries, using electric motors not exceeding 20 HP and or employing not more than 25 workers, which are not noxious or effensive due to odour, duest, smoke, gas noise or vibration or otherwise dangerous to public health and safety; and
10. Installation of electric motors not exceeding 20HP for use incidential to the commercial activities permissible in the zone.

III. INDUSTRIAL USE ZONE - USE ZONE (3)

a. Controlled Industrial use zone;

b. General Industrial Use zone;

c. Special Industrial and Hazardous use zone.

USE ZONE - III(a) CONTROLLED INDUSTRIAL USE ZONE:
USES PERMITTED -

1. All commercial uses listed under use zone 1(a) 1(b) and 2(ie) residential and commercial use zone;

2. Industries using electric power not exceeding 130 HP (LT maximum load) but excluding industries of obnoxious and hazardous nature by reason of odour, liquid effluent, dust, smoke gas, vibration etc., or otherwise likely to cause danger or nuisance to public health or amenity;

3. Hotels, restaurants and clubs, place for special intercourse, recreation and workship and dispensaries and clinics and

4. Residential buildings for care-takers, watchman and other essential staff required to be maintained in the premises;

USE ZONE - III (b) GENERAL INDUSTRIAL USE ZONE:
USES PERMITTED -

1. All Commercial uses listed under use zones 1(a) 1(b) and 2(ie) residential and commercial use zones;
2. All industries without restrictions on the horse power installed or type of motive power used ecluding these of obnoxious or hazardous nature by reasons of odour, liquid effluent, dust, smoke gas, vibration etc., otherwise likely to cause danger or nuisance to public health or amenity;
3. Hotels, restaurants and clubs, or places for social intercourse, recreation and workship for dispensaries and clinics; and
4. Residential buildings for care-takers, watchman and other essential staff required to be maintained in the premises.

USE ZONE - III(c) SPECIAL INDUSTRIAL AND HAZARDOUS

USE ZONE:

Uses permitted -

1. All commercial uses listed under use zones 1 and 2(ie) residential and commercial use zones;
2. All industries permissible in the use zones III(a) and III(b) (ie) the controlled and general industrieal use zones;
3. All uses involving storage, handling, manufactures or processing of highly combustible or explosive materials or produces which are liable to burn with extreme rapidity and or which may produce poisonous fumes or explosion;
4. All uses involving storage, handling, manufacturning or processing which involve highly corrosive, taxi or noxious alkalies, acids, or other liquids or chemicals producing falnes, fumes and explosive poisonous, irritant or corrosive gases;
5. All uses involving storage, handling or processing or any material producing explosive mixtures of dust or which result in the division of matter into fire particles subject to a spontaneous ignition;
6. Processing or manufacturing anything from which offensive or unwhole some smalls arise;
7. Melting or processing tallow or sulphur;
8. Storing, handling or processing of manure, offal, blood, bones, rags, hides, fish borns or skin;
9. Making soap, boiling or pressing oil burning bricks tiles, pottery or like;
10. Washing or drying wool or hair.
11. Making fish oil
12. Manufacturing or distilling Sago and artificial manure.
13. Brewin beer} Manufacturing by distillation arrack or spirit containing alchahal, whether denatured or not.

14. In general, any industrial process which is likely to be dangerous to human life or health or amenity and not permissible in the use zones III(a) and III(b) (ie.) controlled industrial and the general industrial use zones;

15. Hotels, restaurants and clubs or places for social intercourses, recreation and whorship or dispensaries and clinics; and

16. Residential buildings for caretakers, watchman and other essential staff required to be maintained in the premises.

(IV) EDUCATIONAL USE ZONE - USE ZONE(4)

Uses permitted -

1. Schools, colleges and other higher education and training institutions and the uses connected therewith;
2. All uses permitted in use zone 1(a) i.e. Primary residential use zone;
3. Hostels and single person apartments;
4. Recreation clubs, Libraries and Reading rooms; and
5. Restaurants.

(V) PUBLIC AND SEMI PUBLIC USE ZONE - USE ZONE(5)

USES PERMITTED -

1. Government and Quasi-Government Offices;
2. Art Calleries, Museums, Acquaris and Public Libraries;
3. Hospitals, Saniteria and other medical and Public health institutions;
4. Harbour, Air-port and Flying club;
5. Organised parking lots and bus and Taxi stands;
6. Parks, Playfields, Swimming pools, stadia, Zoologically Gardens, Exhibition grounds and other public and Semi public open spaces; and

7. All uses permitted in the use zones 1(a) and (i.e.) the residential use zones.

(VI) AGRICULTURAL USE ZONE:

USES PERMITTED -

1. All agricultural uses;
2. Farm houses and buildings for agricultural activities;
3. Rural settlements with allied uses;
4. Public and private parks, Playfields, Gardens, Caravan and Camping sites and other recreational uses;
5. Dairy and Cattle farms;
6. Piggeries and Poultry farms;
7. Water tanks and Reservoirs;
8. Sewage farm and garbage dumps;
9. Airports and Broadcasting Installations;
10. Forestry;
11. Cemetaries, Crematerier and burning and burial grounds;
12. Storing and Drying of Fertilizers;
13. Fish curing;
14. Salt manufacturing;
15. Brick, tile or Pottery manufacture;
16. Stone crushing and quarrying; and
17. Sand, Clay and Gravel quarrying;

- - - - - - -

ANNEXURE - B.

PALKALAINAGAR NEW TOWN DEVELOPMENT AREA USE ZONE REGULATIONS.

(I) RESIDENTIAL USE ZONE:

(A) PRIMARY RESIDENTIAL USE ZONE:

Revenue Survey numbers.

Thirumangalam Taluk:

A. Kokkulam Village:

6, 10, 121, 122(p), 123, 149, 154, 155, 164, 204, 217, 252, 274.

Kongarpuliyankulam village;

32, 77, 89(p), 91 to 92, 95, 96, 142, 205.

Kinnimangalam Village:

26, 41, 43, 44(p), 106, 187(p), 193(p), 194, 195, 200, 201, 202(p), 204(p), 205, 207, 208(p), 209(p), 210 to 213, 221.

MADURAI TALUK:

Vadapalanji village:

21(p), 84 to 91, 115, 130, 182, 183, 185, 195, 212.

Thenpalanji village:

91, 118.

Sakkilipatti village;

12, 75.

(B) MIXED RESIDENTIAL USE ZONE:

Thirumangalam Taluk;

A.Kokkulam Village:

138, 146(p), 147(p), 148(p), 153(p), 175/B.

Kongarpuliyankulam village;

Nil

Kinnimangalam village:

Nil

Madurai Taluk:

Vadapalanji village: Nil

Thenpalanji village: Nil

Sakkilipatti village: Nil

II. COMMERCIAL USE ZONE:

A.Kokkulam village:

153(p)

Kongarpuliyankulam village

228, 229, 231, 232(p)

Kinnimangalam village

185, 186(p), 187(p), 208(p)

Madurai Taluk:

Vadapalanji village: Nil

Thenpalanji village: Nil

Sakkilipatti village: Nil

III. INDUSTRIES USE ZONE:

(a) CONTROLLED INDUSTRIAL USE ZONE:

A.Kokkulam village:

238/A, 239/A, 240/A, 241/A, 242/A.

Kongarpuliyankulam village;

233, 278, 279.

Kinnimangalam village:

Nil

Madurai Taluk:

Vadapalanji village: Nil

Thenpalanji village: Nil

Sakkilipatti village: Nil

III(b) GENERAL INDUSTRIAL USE ZONE:

A.Kokkula village: Nil

Kongarpuliyankulam village: Nil

Kinnimangalam: Nil

Madurai Taluk:

Vadapalanji village: Nil

Thenpalanji village: Nil

Sakkilipatti village: Nil

III(c) SPECIAL INDUSTRIAL AND HAZARDOUS USE ZONE:

A.Kokkulam village: Nil

Kongarpuliyankulam village: Nil

Kinnimangalam village: Nil

Madurai Taluk:

Vadapalanji village: Nil

Thenpalanji village: Nil

Sakkilipatti village: Nil

IV. EDUCATIONAL USE ZONE:

A.Kokkulam village: 136, 137, 175/A.

Kongarpuliyankulam village: 251, 252(p).

Kinnimangalam village : 209(p)

MADURAI TALUK:

Vadapalanji village:

2 to 10, 12/A,B, 13, 14/A,B, 15/A, 25/A, 26 to 45, 47 to 71, 73/A, B, 74/A,B, 75, 76/A,B, 77 to 83, 92, 93, 101, 104 to 109, 116/A, 117/A, 119/A, 121/A 124/A, 125, 126/A, 127/A, 128/A, 129/A.

Thenpalanji village: Nil

Sakkilipatti village: Nil

V. PUBLIC AND SEMI PUBLIC USE ZONE:

A.Kokkulam village: 148(p), 170, 174(p).

Kongarpuliyankulam village:

234, 235, 240, 241, 243(p), 247, 248, 252(p), 273, 274 to 277.

MADURAI TALUK:

Vadapalanji village: Nil

Thenpalanji village: Nil

Sakkilipatti village: Nil

VI. AGRICULTURAL USE ZONE:

A.Kokkulam village:

1, 2, 4, 5, 7 to 9, 12, to 28, 30 to 33, 35 to 46, 48 to 90, 92 to 102, 104 to 120, 122(p), 124 to 135, 139 to 145, 146(p), 147(p), 150, 153, 156, 157, 159/A, 160/A,B, 161/A,B, 162/A,B, 163/A,B, 165/A,B, 166, 168, 173/A.B, 174(p), 176/A.B, 193 to 195, 197 to 201, 203, 205 to 211, 213, 215, 216, 218, 221 to 226, 228 to 233, 234/A,B, 235/A,B, 236/A,B, 238/B, 239/B, 240/B, 241/B, 242/B, 243 to 251, 253/A,B, 254/A,B, 255/A,B, 257/A,B, 258/A,B, 260, 261, 177/A,B, 178 to 188, 189/A,B, 191/A,B, 192/A,B.

Kongarpuliyankulam village;

1, 6 to 9, 11 to 31, 33 to 76, 78 to 88, 89(p), 90(p), 93, 94, 97, 98 to 126, 128 to 130, 132 to 138, 144 to 169, 171 to 177, 180 to 204, 206 to 214, 216 to 218, 220, 221, 223, 224, 227, 232(p), 236 to 239, 242, 243(p), 244 to 246, 249, 250, 264, 265, 266 to 272.

Kinnimangalam village:

1 to 5, 8 to 25, 27 to 40, 44(p), 46 to 52, 54 to 92, 95 to 99, 101 to 105, 107 to 117, 123 to 184, 186(p), 196 to 199, 202(p), , 203, 204(p), 206, 214 to 220, 222 to 278.

VI. AGRICULTURAL USE ZONE:

MADURAI TALUK:

Vadapalanji village:

15/B, 16 to 20, 21(p), 22 to 24, 25/B, 94 to 100, 102, 103, 110 to 114, 116/B, 117/B, 118, 119/B, 121/B, 122, 123, 124/B, 126/B, 127/B, 128/B, 129/B, 131 to 181, 184, 186 to 194, 196 to 211, 213 to 225.

Thenpalanji village:

1 to 90, 92 to 117, 119 to 136.

Sakkilipatti village:

1to 11, 13 to 74, 76 to 105.

LANDS ZONED FOR THE PROPOSED ROADS:

AA Road 80° wide.

Vadapalanji village;

1(0), 2(p), 3(p), 4(p), 32(p), 33(p), 3[illegible](p), 38(p), 53(p), 55(p), 60(p), 61(p), 63(p), 226(p).

Kongarpuliyankulam village.

68(p), 70(p), 71(p), 76(p), 82(p), 83(p), 86(p), 87(p), 88(p), 89(p), 90(p), 110(p), 111(p), 112(p), 114(p), 121(p), 218(p),

BB ROAD 80° Wide:

Kongarpuliyankulam village:

210(p), 213(p), 239(p). 240(p), 243(P), 244(P), 245(P), 246(P), 247(P), 273(P).

Kinnimangalam village:

184(P), 185(P), 186(P), 191(P), 193(P), 195(P), 201(P), 204(P), 206(P), 207(P), 208(P), 214(P), 215(P), 218(P). 219(P), 220(P), 222(P), 224(P), 225(P).

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Vadapalanji village:

213(P), 214(P), 216(P).

CC ROAD 80° WIDE:

Vadapalanji village:

15/B(P), 24(P), 25(A)(P), 25/B(P)? 26(P), 128/b(P), 130(P), 131(P), 132(P), 133(P), 134(P), . 152(P), 153(P), 160(P), 161(P), 183(P), 184(P), 187(P), 188(P), 189(P), , 213(P), 217(P), 218(P), 220(P), 222(P).

Thenpalanji village:

13(P), 15(P), 17(P), 31(P), 35(P), 36(P), 37(P), 40(P), 42(P), 44(P), 48(P), 50(P), 51(P), 59(P), 60(P).

TOWN CENTRE:

The area marked as "ABCD" is zoned for town centre and the land uses within it shall be regulated as designated therein in the map --

COMMERCIAL:

Kongarpuliankulam village:

230(P), 233(P), 234(P), 235(P), 252(P).

Kinnimangalam village:

185(P), 186(P), 187(P), 194(P).

PLACE FOR PUBLIC WORSHIP :

Kongarpuliankulam village:

247(P), 251(P), 252(P).

Kinnimangalam village:

185(P), 187(P), 190(P), 191(P), 209(P).

PARK AND PLAYGROUND:

Kongarpuliankulam village:

235(P), 247(P), 249(P), 250(P), 251(P), 252(P), 275(P), 276(P), 245(P), 297(P).

Kinnimangalam village:

185(P), 187(P), 189(P), 190(P), 192(P), 209(P).

POLICE STATION:

Kongarpuliankulam village: 241(P), 243(P), 248(P), 273(P).

FIRE STATION:

Kongarpuliankulam village: 243(P), 248(P).

POST AND TELEGRAPHS:

Kongarpuliankulam village: 247(P), 248(P).

PUBLIC OFFICES:

Kongarpuliankulam village: 191(P), 192(P), 193(P), 194(P), 204(P).

BANK:

Kinnimangalam village: 191(P), 208(P).

HOSPITAL:

Kinnimangalam village:

191(P), 208(P), 209(P).

Kongarpuliankulam village:

252(P).

BUS TERMINALS:

Kongarpuliankulam village:

234(P), 235(P), 240(P), 241(P), 248(P),
275(P), 276(P).

COMMUNITY CENTRE:

Kongarpuliankulam village:

247(P), 248(P), 249(P).

ADITORIUM:

Kinnimangalam village:

188(P), 189(P), 190(P), 191(P), 192(P).

HIGHER SECONDARY SCHOOL:

Kongarpuliankulam village:

251(P), 252(P).

Kinnimangalam village:

190(P), 209(P).

RAILWAY STATION:

Kongarpuliankulam village:

233(P), 234(P), 235(P), 240(P), 241(P), 273(P),
274, 275(P), 276(P).

RESTRICTED INDUSTRIES:

Kongarpulian kulam village:

230(P), 233(P), 278(P), 279(P), 280(P).

தமிழ்நாடு அரசு.

மதுரை மாவட்ட அரசிதழ் இணைப்பு.

1982ம் வருடம் ஆகஸ்ட் 8ம் நாள் - அறிவிப்பு.

1. அரசு ஆணை எண். 516, ஊரக வளர்ச்சி உள்ளாட்சித்துறை நாள் 24.3.79
2. அரசு ஆணை எண். 754, ஊரக வளர்ச்சி உள்ளாட்சித்துறை நாள் 7.5.79.
3. அரசு ஆணை எண். 186, ஊரக வளர்ச்சி உள்ளாட்சித்துறை நாள் 13.2.82
4. திருமங்கலம் ஊராட்சி ஒன்றிய குழுவின் 19.6.82ம் தேதிய 1820ம் எண். தீர்மானம்.
5. சேடபட்டி ஊராட்சி ஒன்றிய குழுவின் 8.7.82ம் தேதிய 1510ம் எண். தீர்மானம்.

மதுரை மாவட்டம் உசிலம்பட்டி வளர்ச்சிக் கோட்டத்தில் திருமங்கலம் சேடபட்டி ஊராட்சி ஒன்றியங்களில் இத்துடன் உள்ள அட்டவணையில் குறிப்பிட்ட நில அளவை எண்களுக்கு எதிரில்குறிப்பிட்ட நிலப்பகுதிகளை தொழில் மையப் பகுதிகளாக 8.8.82ம் நாள் முதல் அறிவிக்கப்படுகிறது.

அட்டவணை

ஊராட்சி ஒன்றியத்தின்	ஊராட்சியின்பெயர்	நில அளவை எண்.	தொழில்பகுதிகளாக அறிவிக்கும் நிலப் பகுதி விஸ்தீரணங்கள்.
திருமங்கலம்	கொக்குளம்	234/ஏ 237 238/ஏ 239/ஏ 240/ஏ 241/ஏ 242/ஏ	4.5. ஹெக்டேர்ஸ்.

ஒம். எஸ்.முத்துராஜ்,
கோட்ட வளர்ச்சி அலுவலர் மற்றும்
தனி அலுவலர், திருமங்கலம் &
சேடபட்டி ஊராட்சி ஒன்றியங்கள்.

உசிலம்பட்டி,
நாள் 14.7.87.

// உண்மை நகல் //

ஒம்,
நகர் ஊரமைப்பு உதவி இயக்குநர்,
மதுரை மண்டலம்.